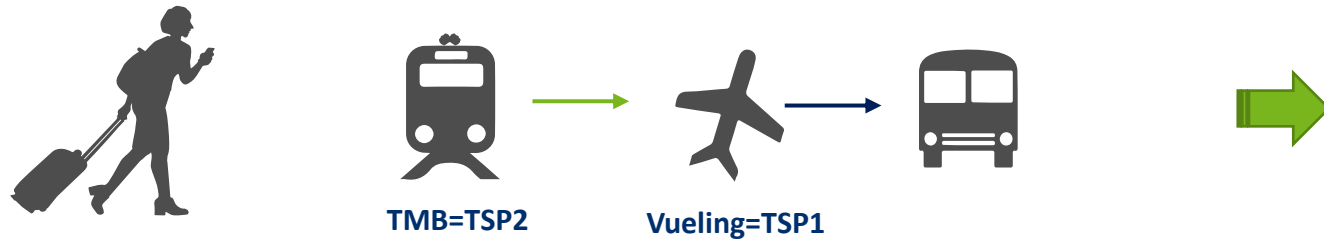


SYN+AIR project presentation – X-TEAM D2D Final event

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Villa Doria D'Angri
Naples, 14th September 2022

Problem statement

Joana wants to travel from Barcelona to Brussels and wants to have a door2door seamless journey

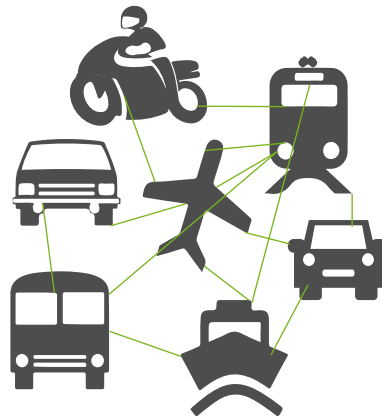


Ideal situation is:

- 1) Single ticket at a reasonable price
- 2) Real time information
- 3) Less waiting time at the interchanges
- 4) Re accommodation in case of disruption



This is the objective of SYN+AIR: to allow TSPs to collaborate in a simple and efficient way through Smart Contracts Framework (SCF)



Implies that the TSPs need to collaborate/agree on:

- 1) Share data e.g., schedules, traveller's ID, luggage, assistance-PRM etc.
- 2) Pricing scheme
- 3) Revenue sharing
- 4) Responsibility sharing in case of disruption or cancelation

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- What is the Smart Contracts Framework (SCF)?
- Proposed solution's actors
- SYN+AIR's platform functionalities
- Legal sub layers
- Interesting results and outcomes

What is the SCF?

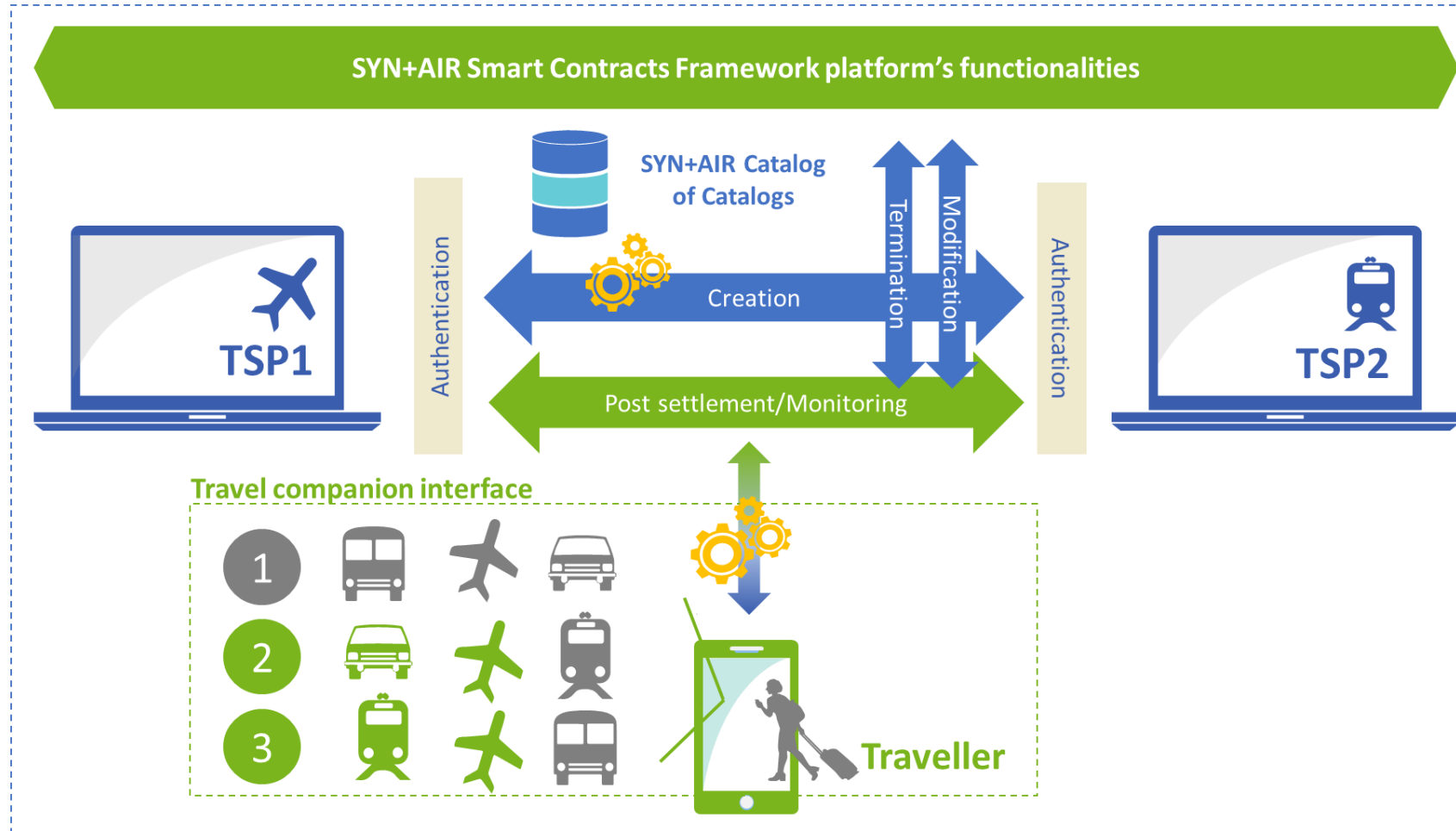
“Smart Contracts Framework” (SCF)

- a **business process** that defines data exchange rules among TSPs that share the common goal of getting the passenger to the destination through a multimodal chain of trips
 - provides a **centralized hub** for **contracts management** via a web platform (named SYN+AIR platform) that allows TSPs to create, modify, terminate, and validate signed contracts (both data **sharing agreements** and **smart contracts**).
 - the storage of TSPs’ data and, all the data sharing processes are executed **outside** of the SYN+AIR platform.

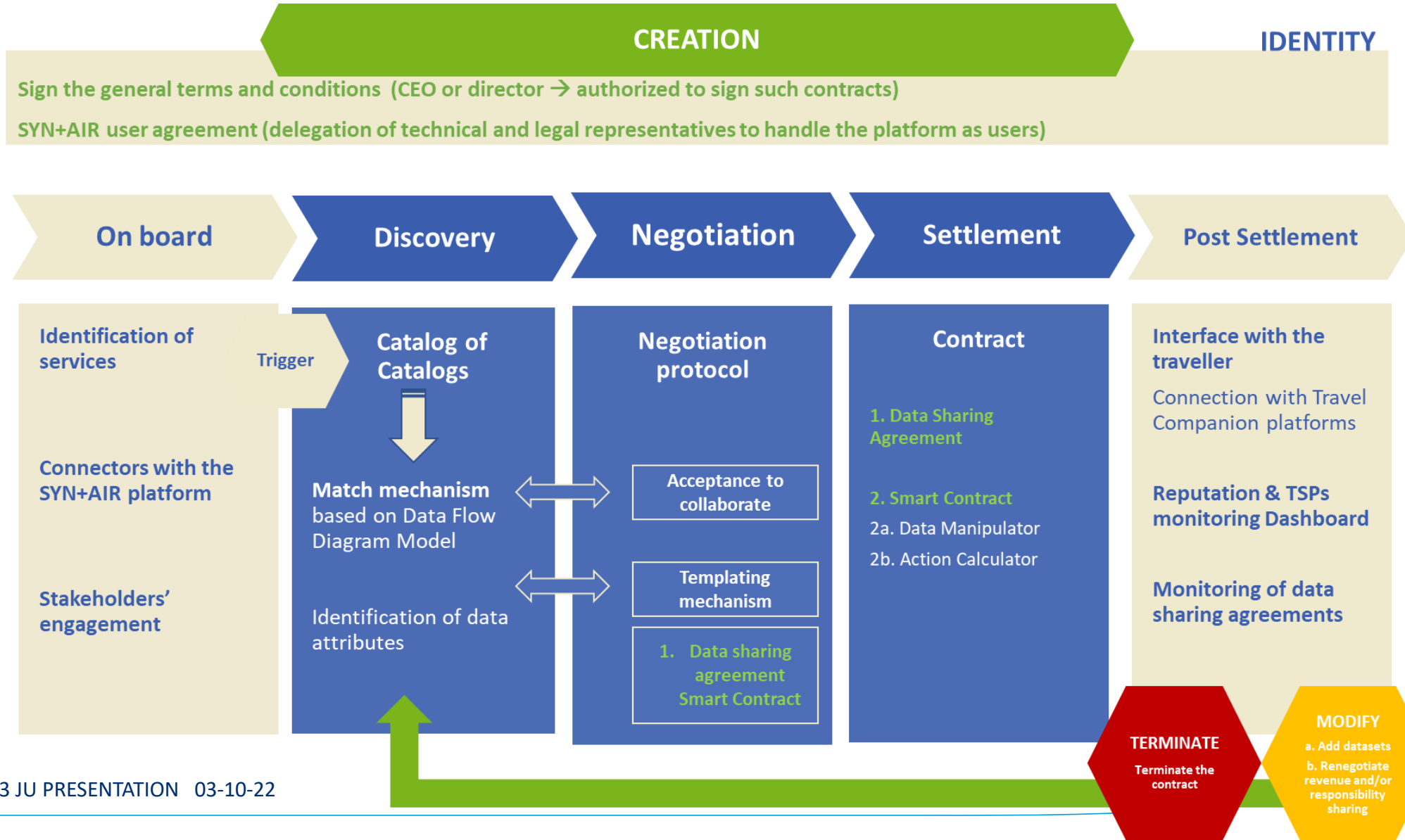
Proposed solution-“Backend”

Components/Actors/Functionalities

Central point to manage the contracts between the TSPs, facilitated by a web platform



Proposed solution (Steps that a TSP need to follow)



1

General terms and conditions

1. under what conditions the SYN+AIR platform is provided;
2. the **rights and obligations of TSPs** when using the SYN+AIR platform;
3. **the (by default) rights and obligations of TSPs when processing the Data** being shared by the means of **Data Sharing Agreements**;
4. **the (essential) rights and obligations of TSPs** deriving from **Smart Contracts**.

2

User agreements

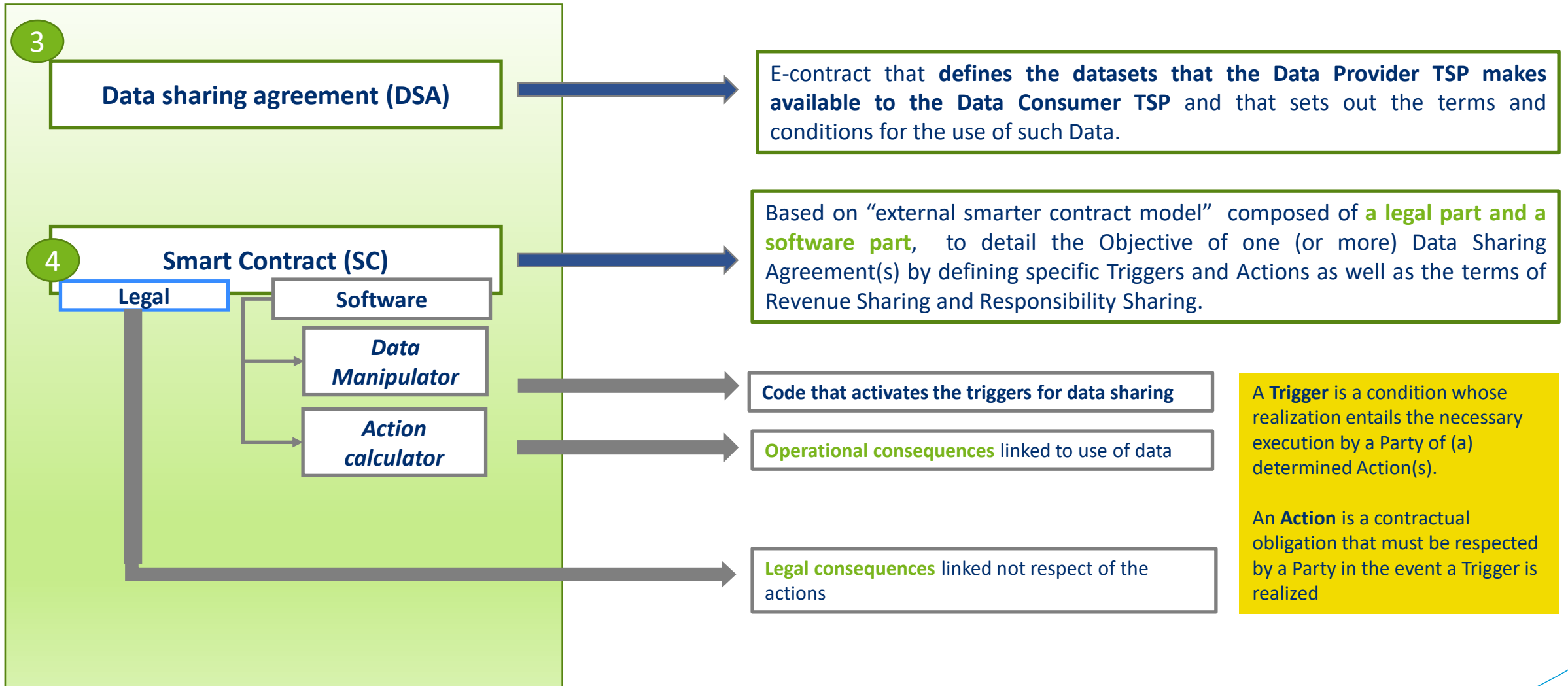
Designation of authorized users (3 types) of SYN+AIR platform

1. Duly authorized and entitled to act on behalf of the legal entity (i.e., director or the CEO) → sign the Data Sharing Agreements and the Smart Contracts;
2. Administrative Representative: to negotiate the terms of the DSA and of the SC on behalf of the TSP;
3. **Technical Representative**: to create and maintain the TSPs' data catalogue(s) in the SYN+AIR platform.

Outcome

Accepted terms & conditions, Assign authorized users of platform

Negotiation-legal layer



SYN+AIR's results and outcomes 1/2

1. Identification of **stakeholders participating in a specific trip chain** i.e., Railway Operating company=TMB, Infrastructure manager=Infraestructures Ferroviàries de Catalunya, the airport manager=AENA and the airline=Vueling
2. Identification of **data generated by each stakeholder per mode and the data that are required to be exchanged to have a seamless journey**
3. Creation of a model composed by different **Data Flow Diagrams** representing trip chains (aka alternatives that a traveller might have for going from A to B (door-to-door))



Air Transport as the main leg:
[Train → Airplane → Train],
[Metro → Airplane → Bus],
[Bus → Airplane → Uber/Taxi] and
[Uber/Taxi → Airplane → Metro]



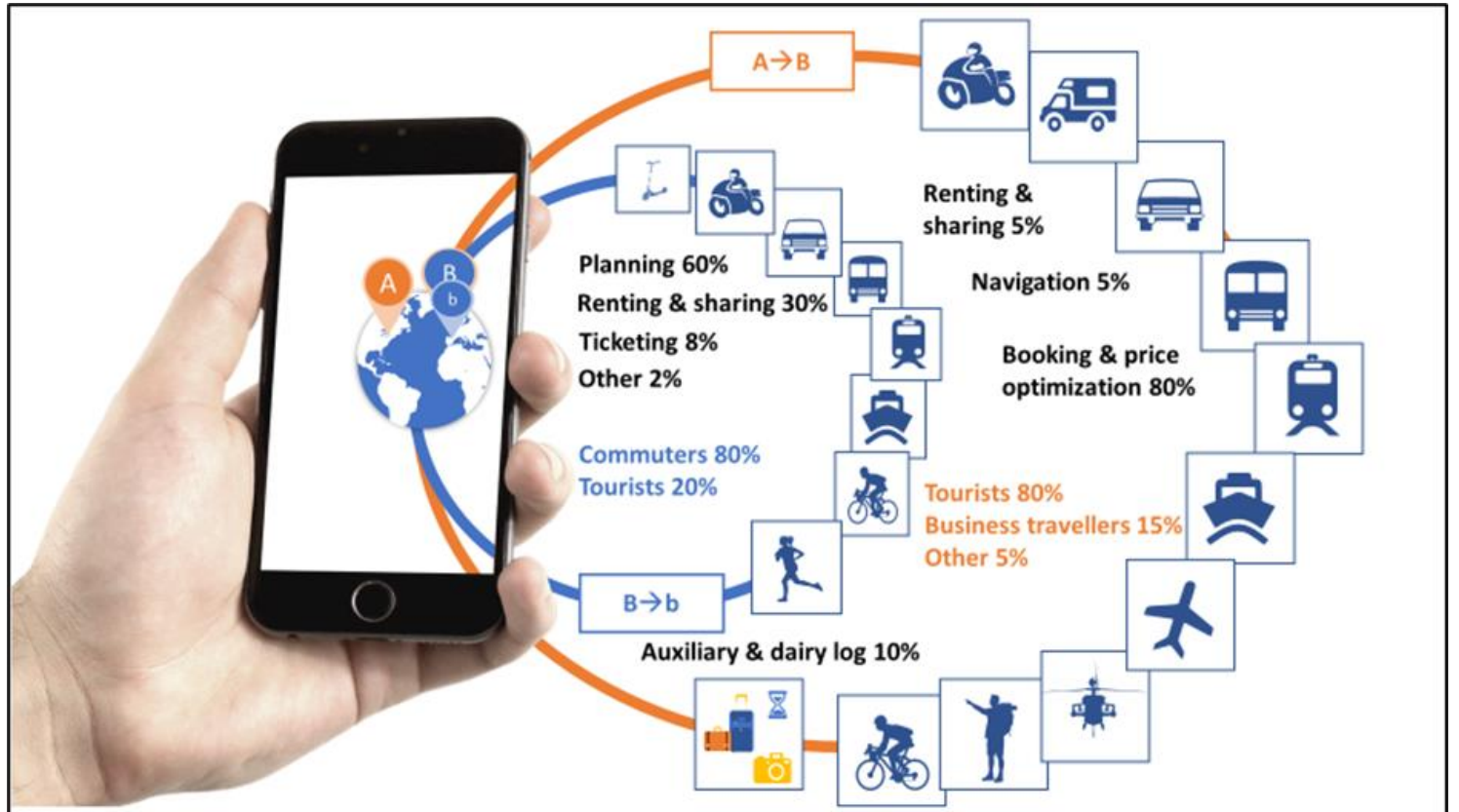
Rail Transport as the main leg:
[Uber/Taxi → Train → Bus],
[Bus → Train → Uber/Taxi] and
[Metro → Train → Metro]



Maritime Transport as the main leg:
[Train → Ferry → Uber/Taxi],
[Uber/Taxi → Ferry → Train] and
[Bus → Ferry → Bus]

SYN+AIR's results and outcomes 2/2

- Has identified the objectives of collaboration between pairs of TSPs
 - Single ticketing
 - Optimization of resources
 - Increase car sharing
 - Disruption recovery plans and real time updates
- More than 200 existing Travel Companions web and mobile apps were identified, analyzed and clustered and has linked them with the results of the SCF.





Q & A

For more information you can always download our deliverables from the project website <http://syn-air.eu/>

THANK YOU FOR
YOUR ATTENTION